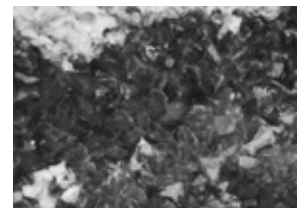


Dry Formations

Dry formations come in a few different sorts. Some do require water to work, but are deposited as the water dries away. Other formations are also known as evaporatives. Some are actually formed under water, but have had no water on them since forming.

Cave Coral

Looking like a crusty version of Popcorn is cave coral. This evaporative often starts out as aragonite, a less stable form of Calcium Carbonate that will convert to calcite over time.



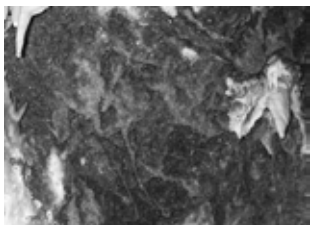
Dogtooth Spar

The oldest formations in the cave are dogtooth spar. Also known simply as spar, it grew when the cave was full of water before the river downcut

and drained. Most spar is covered by other formation growth since the cave drained. Spar visible at the surface is rare in Lewis & Clark Caverns. Spar are large versions of the same tiny calcite crystals that make up all of the major speleothems in Lewis & Clark Caverns.

Boxwork

When larger spar-like crystals form in cracks it can later be revealed as boxwork. These formations look like frames that surround chunks of limestone that have eroded away over time.



Chert Nodules

Chert Nodules are the oddball formation of Lewis & Clark Caverns in that they are not made of Calcium Carbonate. Chert is a cryptocrystalline version of quartz. It forms large lens like nodules that often protrude from the limestone as it is a harder and more erosion resistant mineral and doesn't grow so much as it is exposed as the rock around it erodes.



Practice Leave No Trace:

Montana State Parks is a proud partner with the Leave No Trace Center for Outdoor Ethics.

There are few places the Leave No Trace ethics are as important as they are in a cave.

Please leave all formations and cave rocks as you find them for future users to enjoy.

Please refrain from even touching cave formations as it causes them to stop growing and even deteriorate and "die"

Make sure anything that you take into the cave, comes back out. There is no trash service inside the cave.

Be sure to use restrooms before entering the cave.

Water is the ONLY food or drink allowed in the cave, that includes substances such as tobacco and chewing gum.



Lewis & Clark Caverns State Park Cave Formation List



Cave Formations or Speleothems, as they are known to geologists, are what make Lewis & Clark Caverns an extraordinary cave system. The guided tour portion of the cave features all three major formation groups: Flowstone, Dripstone, and Seepstone (also called Erratics). There are various other formations that don't really fit into any of the major groups and several of those can be found here as well. Please enjoy our formations and help us protect them so that future generations can enjoy them as well.



Dripstones

Dripstones are the best known formations. When people think of caves, dripstone formations are what leap to mind. There are three basic types. In Lewis & Clark Caverns all the dripstones are made of a crystalline form of Calcium Carbonate known as Calcite.

Stalactites

Stalactites grow from the ceiling and hang like icicles. They grow in much the same way but at an extremely slower rate. The fastest in Lewis & Clark Caverns grow at about one cubic inch every ten years. There are two main versions of stalactite. The larger ones are tapered and called conical stalactites. All of them start out as the other type, small hollow tubes known as “soda straws.” Soda straws are straight and very delicate. They rarely grow much more than a foot long before either breaking or clogging, which creates the larger conical stalactites.



Stalagmites

Many stalactites are mirrored on the floor by an upward growing stalagmite. These formations tend to be wider and heavier than stalactites. Stalagmites are almost always larger than stalactites in North American Caves. The uneven shape is due to the drip rates and spattering of the water drops as they hit the ground.

Columns

Columns are the largest formations in the cave. They are formed usually, by a joining of a stalactite and stalagmite. Sometimes a stalactite or stalagmite can reach the floor or ceiling and create a column alone.

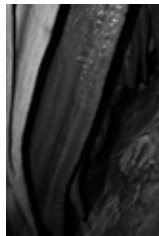


Flowstones

Flowstones are not as well known as dripstones but are the most widespread cave formation type, almost all caves with formation growth have some form of flowstone. Most are rather bland, but a few such as waterfalls and ribbons are very ornate.

Waterfalls

Waterfalls are some of the prettiest and most complex cave formations. The longest formation in the cave is a giant waterfall cascading down The Pit. The Brown Waterfall is the most photographed formation in the whole cave.



Ribbons

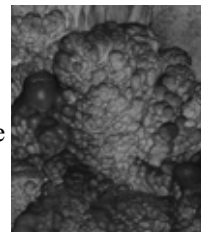
Some flowstones grow on overhanging walls and become ribbons. If there are different impurities coloring the ribbon it is given the name Cave Bacon.

Seepstones/Erratics

Unlike Dripstones and Flowstones, Seepstones do not follow the vertical path of gravity; rather they grow in many different directions which gives them the “Erratic” name.

Popcorn

Also known as clusterites or globulites, popcorn is one of the most common and best known cave formations. It is easily the most common of the erratic formations and most caves with formations have at least some popcorn. It grows from water seeping out and creating layers of growth in small sphere-like shapes.



Seepstones Cont.

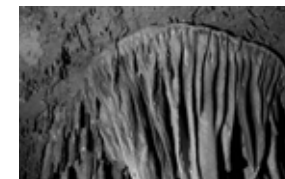
Helictites

One of the smallest and most delicate formations is the helictite. These little worm-like formations grown in very peculiar and interesting ways. Usually less than 4” long they take thousands of years to reach even that modest size. Like other erratics they grow in various directions often altering their course as they grow.



Fracture Shields

One of the rarest and least understood formations is the fracture shield also known simply as shield.



Shields grow out of cracks in the wall or floor and seem to defy gravity as they grow straight away from the crack. Shields with for-

mations growing off of the bottom side are also referred to as parachutes.

Pool Formations

There are other formations that form in and around pools of water. Many of these are perfectly level as they form along the water’s surface tension at the edge of the pool.

Shelfstone and Rimstone

Rimstone forms in steps like small terraces and creates little Rimstone



Dams. Shelfstone only forms out from the edge of the pool. Shelfstone can indicate the presence of a long dried pool of water.